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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/786,293	03/01/2001	Ronaldus Maria Aarts	PHN-17,509	8105

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PHILIPS INTELLECTUAL PROPERTY & STANDARDS  
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EXAMINER

PENDLETON, BRIAN T

ART UNIT	PAPER NUMBER
2644	5

DATE MAILED: 03/03/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/786,293

Applicant(s)

AARTS ET AL.

Examiner

Brian T. Pendleton

Art Unit

2644

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 01 March 2001.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-10 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-3 and 7-10 is/are rejected.  
7) ☒ Claim(s) 4-6 is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 7, 8 and 10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 7 recites the limitation "where  $\alpha = S / S_{\text{norm}}$ " in line 6. There is insufficient antecedent basis for this limitation in the claim. Claim should be dependent on claim 4.

Regarding claim 8, the phrase "such as" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

Claim 10 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite in that it fails to point out what is included or excluded by the claim language. This claim is an omnibus type claim.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3 are rejected under 35 U.S.C. 102(b) as being anticipated by Klippel. Klippel discloses a loudspeaker protection system comprising filter means 3 for defining

a low pass frequency band of an incoming audio signal, controllable amplifier means 5 coupled to the filter means 3 and processing means 4 coupled to control the amplifier means 5 in figure 1. As disclosed in column 3 lines 23-44, the filter 3 is a low pass filter providing the displacement of the speaker 2. The processing means 4 is an envelope detector which generates a peak amplitude signal. The peak signal is a measure of audio power in the low frequency band, the low frequency band having relevant loudspeaker protection information since speaker systems inherently are overdriven with high speaker excursion in the low frequency range. Claim 1 is met. As to claim 2, the processing means determines the audio power, proportional to peak value. Per claim 3, the audio signal is divided into  $n=1$  frequency band(s) using the low pass filter.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Klippel in view of Juve et al. Klippel discloses an apparatus comprising filter means for defining a frequency band, controllable amplifier means, and processing means coupled to the controllable amplifier means for controlling the input audio signal based on signal power. Klippel does not teach a series arrangement of the speaker and a resistor, whereby the resistor is coupled to the processing means for supplying impedance data of the speaker. Juve et al teach having a resistance 14 (see figure 2) in series with

loudspeaker 12 in a speaker protection circuit. The resistance was provided as a load impedance of the amplifier 22. The resistance also was used for the shunting circuit which controlled the maximum output of the speaker. The resistance 14 usually matched that of the speaker. It was advantageous to use the resistance in such a fashion because it enabled the circuitry to effectively limit the amplitude of audio signals to a specific speaker. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to use the teachings of Juve et al in the invention of Klippel.

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Klippel in view of Frindle et al. Klippel discloses an apparatus comprising filter means for defining a frequency band, controllable amplifier means, and processing means coupled to the controllable amplifier means for controlling the input audio signal based on signal power. Klippel does not teach the processing means is arranged to initiate control in a shorter amount of time than that control is withdrawn. Klippel does not explicitly discuss attack and release times. Frindle et al teach an audio processing apparatus for controlling the gain of an input signal comprising peak detector 30 and processor 50. As demonstrated in figures 2 and 3, it was well known to have an attack time which is shorter than the release time period. This feature initiates control of the gain in a shorter amount of time than withdrawing control, as claimed by the Applicant. It was advantageous to use such a feature because it would quickly respond to abrupt increases in the input signal, thereby preventing overdriving a speaker. Therefore, it

would have been obvious to one of ordinary skill in the art at the time of invention to combine the teachings of Klippel and Frindle et al.

***Allowable Subject Matter***

Claims 4-6 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: Claim 4 states that the processing means is capable of summing a subrange of possible audio power values in the frequency bands. The prior art of record does not disclose nor suggest the use of a summer. While Klippel does determine audio power in one frequency band, there are no multiple frequency bands and power determined in each band and summed. As a result, dependent claims 5 and 6 are also objected to.

***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Clark, US Patent 5,548,650, Kates, US Patent 4,454,609, Stuhlfelner, US Patent 6,005,953, De Koning et al, US Patent 4,783,819.

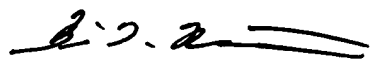
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian T. Pendleton whose telephone number is (703) 305-9509. The examiner can normally be reached on M-F 7-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Forester W. Isen can be reached on (703) 305-4386. The fax phone

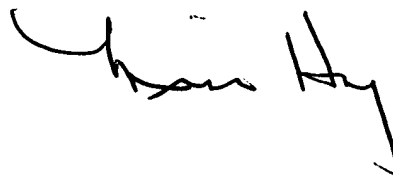
Art Unit: 2644

number for the organization where this application or proceeding is assigned is (703) 872-9314.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4700.



Brian Tyrone Pendleton  
February 23, 2004



MINSUN OH HARVEY  
PRIMARY EXAMINER